

Patent Claims

Ans A6
Sub #7
BIS
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A soil compaction device with

- a soil contact plate (5);
- an oscillator (1, 2, 3, 4) that acts on the soil contact plate (5), has at least two eccentric masses (3, 4) that rotate in opposite directions whose phase relationship can be adjusted relative to one another by means of a positioning unit (6, 10); and with
- at least one moving operator element (8) to control the positioning unit (6, 10):

10 **characterized in that** a sensor unit (11) is provided to determine the position of the operator element (8) (at least one) and to produce a signal to control the positioning unit (6).

15 2. A soil compaction device according to claim 1, **characterized in that** the operator element (8) and the sensor unit (11) are attached to a guide handle (7) of the soil compaction device.

20 3. A soil compaction device according to claim 1 or 2, **characterized in that** the sensor unit (11) has at least one capacitive, inductive or resistive sensor.

4. A soil compaction device according to claim 1 or 2, **characterized in that** the sensor unit (11) has at least one Hall sensor (13) or a reed contact as well as a transmitting element (12) attached to the operator element (8).

25 5. A soil compaction device according to claim 1 or 2, **characterized in that** the sensor unit (11) has at least one proximity switch.

30 6. A soil compaction device according to one of the above claims, **characterized in that** the positioning unit (6) has a fluid-activated piston/cylinder unit as well as an electromechanical valve controlled by the signal from the sensor unit (11) to control a fluid stream at the piston/cylinder unit.

7. A soil compaction device according to one of the above claims, **characterize in that** two operator elements (8) are provided that move independent of one another and through which the phase relationship of a group of rotating eccentric masses (3, 4) can be changed.
- 5 8. A soil compaction device according to one of the above claims, **characterized in that** the operator element(s) (8) can be tilted away from a spring effect from a zero position, and in this zero position its overall force resulting from the rotating eccentric masses (3, 4) has no horizontal component.
- 10 9. A soil compaction device according to one of the above claims, **characterized in that** in addition to the operator elements (8), a remote control unit is provided with a sending unit that can be spatially separated from the soil compaction device and with a receiving unit (9) attached to the soil compaction device, wherein a signal can be produced by the receiver unit (9) to control the positioning unit (6).
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